Sidharth Arya

Senior Machine Learning Engineer

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Machine Learning Engineer with 3+ years experience building scalable ML solutions and data-intensive applications.
Skilled in optimization, automation, and cross-functional collaboration. Proven in enhancing system performance and efficiency through robust architectures. Committed to solving real-world problems with clean, maintainable code.

CORE SKILLS

Technical: Machine Learning, Machine Learning Operations (MLOps), Optimization, Computer Vision, Natural Language Processing (NLP), Deep Learning, Artificial Intelligence, Reinforcement Learning, Model Context Protocol (MCP), Data Warehousing, Full Stack Development

ML Models: GPT, BERT, Gemini, Stable Diffusion, Llama, Large Language Model (LLM), Segment Augmented Mask (SAM), Google's timesfm, IBM's granite, OpenAl gym, Lama, word2vec

Libraries: Pytorch, Tensorflow, Onnx, Langchain, Llamalndex, MIFlow, Kube Flow, OpenCV, scikit-learn (sklearn), gradio, streamlit, huggingface, ray, bytewax, pathway, Pandas, FastMCP, FastAPI, Hadoop, Hive, Apache Spark, Apache Flink, seaborn, plotly, Langgraph, Python, Node.js, CrewAI, FAISS, Scann

Database: Pinecone, Qdrant, Weaviate, PostgreSQL, Elasticsearch, Redis, MongoDB, Timescaledb, Memcached

Tools: Google Colab, AWS Sagemaker, GCP VertexAI, Linux, Sentry, Terraform, Firebase, Docker, Google Cloud Platform (GCP), Amazon Web Services (AWS), Azure, CloudFlare, Nginx, Jenkins, Langsmith, DVC, JAX, Langfuse, Milvus

Soft Skills: Problem Solving, Critical Thinking, Creativity, Leadership

WORK EXPERIENCE

Senior Software Engineer - Machine Learning 08/2024 – Present | Noida
Soulever

Led the Machine Learning team in designing and deploying scalable solutions, optimizing data pipelines and throughput for complex, high-volume tasks. Built robust, reusable ML pipelines to accelerate development and deployment.

- Developed a recommendation system to optimize manufacturing process parameters, improving production efficiency by 3%.
- Architected an MCP-driven chatbot enabling seamless context sharing and automation for platform capabilities.
- Developed an anomaly detection system to identify performance deviations in production metrics and surface root causes in real time reducing fault incidents
- Built an Advanced Analytics Platform enabling 140% faster data exploration and analysis and reduced data usage by 30%
- Refactored data pipelines, reducing CPU utilization by 1000%, reduced CPU Temperature by 70%
- Optimized the company’s internal data visualization platform, improving dashboard load times by 90% through low-level query and caching optimizations.

Freelancing 02/2024 – 07/2024 | Delhi

Collaborated with individuals across domains to optimize specialized tasks, primarily involving Machine Learning.
nProjects include

- Image Repainting, Image Upscaling, Object Removal and Inpainting for CMS platform
- E2E terraform architecturing for ML

Machine Learning Engineer 11/2022 – 07/2023 | Delhi
Aftershoot

Developed scalable ML systems including a user-personalized Al agent, head pose detection model, and robust training pipeline. Led MLOps setup with Kubeflow, Docker, and A100 GPU partitioning, optimizing team workflows, model performance, and cloud-based deployment across GCP and AWS.

- Implemented models that captured user editing behavior to personalize and auto-adjust future AI-generated photo galleries
- Designed a modular ML training pipeline that dynamically adapts a user defined model for faster experimentation.
- Implemented a real-time head orientation tracker using fine tuned deep pose for accurate yaw–pitch–roll prediction.
- Built a scalable MLOps pipeline leveraging Kubeflow and NVIDIA MIG for parallelized workloads, reducing cost by 60%.

Data Scientist 06/2021 – 10/2022 | Bangalore
Glda Technologies

Led development of Al and ML solutions across audio denoising, scheduling, computer vision, and data platforms. Optimized pharmaceutical operations, built scalable pipelines, and deployed full-stack systems.

- Developed a real-time speech enhancement system using DL to improve voice clarity in noisy environments.
- Developed a Genetic Algorithm–based manufacturing scheduler optimizing sequencing, reducing production time by 20%
- Built a computer vision–based metro card scanner leveraging OpenCV and OCR automating card identification and billing.
- Developed a production scheduler for pharma packaging, acheiving up to 80% reduction in operational costs.

EDUCATION

Master of Technology Artificial Intelligence 09/2020 – 07/2022
National Institute of Technology

Bachelor of Technology Engineering Physics 08/2014 – 08/2018
Delhi Technological University